

## PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

To:

REED, T., David  
The Procter & Gamble Company  
5299 Spring Grove Avenue  
Cincinnati, OH 45217-1087  
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 25 August 2000 (25.08.00)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference 7341/VB	
International application No. PCT/US99/27201	International filing date (day/month/year) 16 November 1999 (16.11.99)

## 1. The following indications appeared on record concerning:

☒ the applicant      ☒ the inventor      ☐ the agent      ☐ the common representative

Name and Address KASTURI, Chandrika 10444 Cliffwood Court Cincinnati, OH 45241 United States of America	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person      ☐ the name      ☒ the address      ☐ the nationality      ☐ the residence

Name and Address KASTURI, Chandrika 10044 Cliffwood Court Cincinnati, OH 45241 United States of America	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

## 3. Further observations, if necessary:

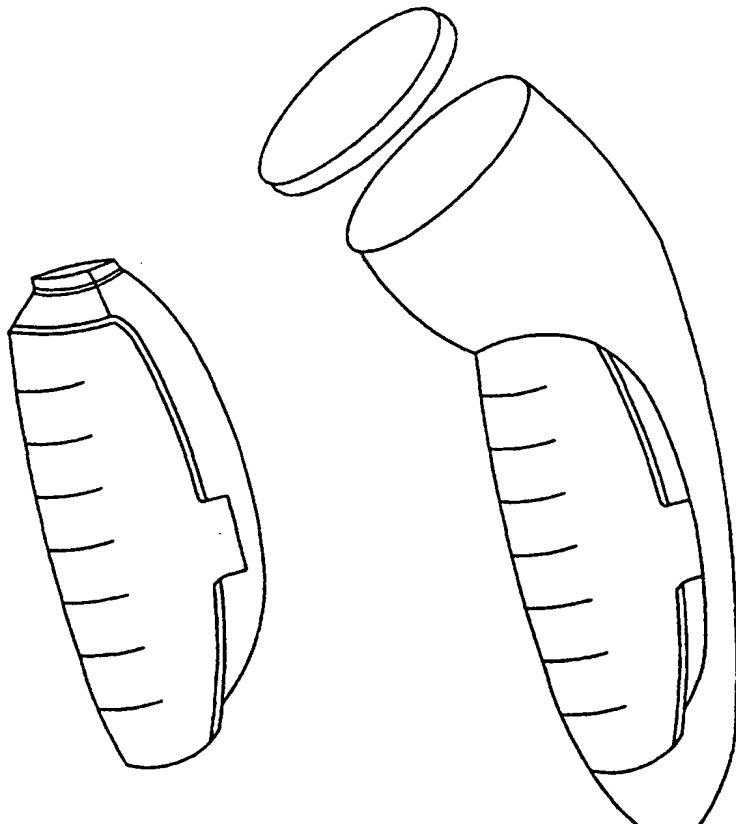
## 4. A copy of this notification has been sent to:

☒ the receiving Office      ☐ the designated Offices concerned  
☐ the International Searching Authority      ☒ the elected Offices concerned  
☒ the International Preliminary Examining Authority      ☐ other:

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer Marie-José Devillard</p> <p>Telephone No.: (41-22) 338.83.38</p>
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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>7</sup> :</b> <b>A47L 17/04, 15/13, B08B 3/12</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 00/28874</b> <b>(43) International Publication Date:</b> 25 May 2000 (25.05.00)
<b>(21) International Application Number:</b> PCT/US99/27201 <b>(22) International Filing Date:</b> 16 November 1999 (16.11.99) <b>(30) Priority Data:</b> 60/108,629 16 November 1998 (16.11.98) US <b>(71) Applicant (for all designated States except US):</b> THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> MCKENZIE, Kristen, Lynne [US/US]; 5365 Harvestdale Drive, Mason, OH 45040 (US). SCHEPER, William, Michael [US/US]; 2393 Picnic Woods Drive, Lawrenceburg, IN 47025 (US). THOEN, Christiaan, Arthur, Jacques, Kamiel [BE/US]; 8485 Rupp Farm Drive, West Chester, OH 45069 (US). KASTURI, Chandrika [US/US]; 10444 Cliffwood Court, Cincinnati, OH 45241 (US). <b>(74) Agents:</b> REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).		<b>(81) Designated States:</b> AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), DM, EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>  <b>(88) Date of publication of the international search report:</b> 21 September 2000 (21.09.00)
<b>(54) Title:</b> ULTRASONIC CLEANING DEVICE  <b>(57) Abstract</b> <p>The present invention relates to a hand held ultrasonic cleaning device comprising a housing, said housing comprising a gripping means; a cleaning head adapted to rest on and be moved over surface to be cleaned, wherein said cleaning head is adapted to be removably mounted to said housing and the minimum surface area of said cleaning head to rest on said surface is greater than 6.25 cm squared; A transducer means mounted in said housing for oscillating said cleaning head at an ultrasonic frequency; and a power for supplying direct current to said transducer means, wherein said power supply means is associated with said device. Further disclosed is a method of removing tough food soil from a hard surface comprising the steps of: (i) contacting said soil with a cleaning composition; (ii) contacting said soil with said cleaning head of said ultrasonic cleaning device; (iii) rinsing said hard surface with an aqueous solution. Further the invention relates to an ultrasonic cleaning product comprising: (a) a cleaning composition comprising a cleaning agent; and (b) the hand held ultrasonic cleaning device.</p> <div style="text-align: right;">  </div>		

**FOR THE PURPOSES OF INFORMATION ONLY**

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/27201

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A47L17/04 A47L15/13 B08B3/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A47L B08B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	WO 99 42553 A (PROCTER & GAMBLE ET AL) 26 August 1999 (1999-08-26) abstract page 5, line 24 -page 6, line 10 figure	1-32
A	FR 1 102 562 A (ATELIERS DE CONSTRUCTIONS ÉLECTRIQUES DE CHARLEROI) 24 October 1955 (1955-10-24) the whole document	1, 10
X		31, 32
A	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 05, 31 May 1999 (1999-05-31) - & JP 11 047061 A (SHARP CORP), 23 February 1999 (1999-02-23) abstract	1, 10, 24, 26, 27, 31, 32
	-/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

17 May 2000

Date of mailing of the international search report

29/05/2000

Name and mailing address of the ISA

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Cabral Matos, A

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/27201

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 450 646 A (MCHUGH H M ET AL) 19 September 1995 (1995-09-19) abstract; figure 1	1,10,24, 26,27
A	EP 0 128 277 A (LEX F) 19 December 1984 (1984-12-19) abstract page 4, line 29 - line 33 figures	1,10,24, 26,27
A	US 5 454 659 A (VOSBIKIAN PETER S ET AL) 3 October 1995 (1995-10-03) abstract; figure 2	1,10,24, 26,27
A	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12, 25 December 1997 (1997-12-25) -& JP 09 205074 A (SONY CORP), 5 August 1997 (1997-08-05) abstract	
A	US 5 770 801 A (DRAYER L R ET AL) 23 June 1998 (1998-06-23) cited in the application abstract; figure 15	
A	US 5 247 716 A (BOCK R T) 28 September 1993 (1993-09-28) cited in the application abstract; figure 1	

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/27201

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9942553 A	26-08-1999	AU 3302299 A	06-09-1999
FR 1102562 A	24-10-1955	NONE	
JP 11047061 A	23-02-1999	NONE	
US 5450646 A	19-09-1995	NONE	
EP 0128277 A	19-12-1984	DE 3469142 D	10-03-1988
US 5454659 A	03-10-1995	NONE	
JP 09205074 A	05-08-1997	NONE	
US 5770801 A	23-06-1998	US 5494038 A	27-02-1996
		CA 2246322 A	28-08-1997
		EP 0883876 A	16-12-1998
		WO 9731364 A	28-08-1997
		AU 697675 B	15-10-1998
		AU 5390896 A	18-11-1996
		CA 2218662 A	31-10-1996
		EP 0823111 A	11-02-1998
		JP 11504230 T	20-04-1999
		WO 9634381 A	31-10-1996
US 5247716 A	28-09-1993	US 5138733 A	18-08-1992
		DE 69325373 D	22-07-1999
		DE 69325373 T	21-10-1999
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		US 5369831 A	06-12-1994
		WO 9401054 A	20-01-1994
		US 5546624 A	20-08-1996

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

15


Applicant's or agent's file reference 7341/VB	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/27201	International filing date (day/month/year) 16/11/1999	Priority date (day/month/year) 16/11/1998
International Patent Classification (IPC) or national classification and IPC A47L17/04		
Applicant THE PROCTER & GAMBLE COMPANY et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
  - ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☐ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand  18/05/2000	Date of completion of this report  21.12.2000
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Papadimitriou, S  Telephone No. +49 89 2399 2760



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US99/27201

## I. Basis of the report

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).):*

### Description, pages:

1-74 as originally filed

### Claims, No.:

1-32 as originally filed

### Drawings, sheets:

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/27201

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US99/27201

**Rule VIII**

**Certain observations on the international application**

1) Independent claims 1,10,26,27,31,32

Although these claims have been drafted as separate independent apparatus claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and/or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.

Hence, these claims do not meet the requirements of Article 6 PCT.